



SEQUENCE LISTING

<110> Wood, Keith  
Hannah, Rita  
Moravec, Richard A.

<120> Method for Detection of ATP

<130> 10743-6

<140> US 09/813,279

<141> 2001-03-19

<150> US 60/269,526

<151> 2001-02-16

<160> 8

<170> Microsoft Word (Text Only Format)

<210> 1

<211> 544

<212> PRT

<213> Artificial Sequence

<220> 78-OB10

<223> Mutant luciferase derived from LucPpe2

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Ser Phe Lys Lys Tyr Gly Leu Lys Gln Asn Asp Thr Ile Ala Val Cys  
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Ser Glu Asn Gly Leu Gln Phe Phe Leu Pro Val Ile Ala Ser Leu Tyr  
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Leu Ile His Ser Leu Gly Ile Val Lys Pro Arg Ile Ile Phe Cys Ser  
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Gln Cys Leu Asn Asn Phe Ile Ser Gln Asn Ser Asp Ser Asn Leu Asp  
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Thr Phe Gly Asn Ala Ile Asn Pro Thr Thr Ala Ile Leu Thr Val Ile

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Gln	Gly	Tyr	Gly	Leu	Thr	Glu	Thr	Thr	Ser	Ala	Val	Leu	Ile	Thr	Pro
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Tyr	Asn	Asn	Glu	Glu	Ala	Thr	Lys	Ala	Ile	Ile	Asp	Asn	Asp	Gly	Trp
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Leu	Arg	Ser	Gly	Asp	Ile	Ala	Tyr	Tyr	Asp	Asn	Asp	Gly	His	Phe	Tyr
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Ile	Val	Asp	Arg	Leu	Lys	Ser	Leu	Ile	Lys	Tyr	Lys	Gly	Tyr	Gln	Val
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SEQUENCE LISTING

<110> Wood, Keith  
Hannah, Rita  
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<120> Improved Method for Detection of ATP

<130> 10743-6

<140> US 09/813,279

<141> 2001-03-19

<150> US 60/269,526

<151> 2001-02-16

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<1>SEQUENCE LISTING

<110> Wood, Keith  
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<140> US 09/813,279

<141> 2001-03-19

<150> US 60/269,526

<151> 2001-02-16

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Cys Gly Phe Arg Val Val Leu Met His Thr Phe Glu Glu Lys Leu Phe  
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Tyr	Asn	Asn	Glu	Glu	Ala
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Leu	Arg	Ser	Gly	Asp	Ile
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Ala	Pro	Ala	Glu	Ile	Glu
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 <220> 133-1B2  
 <223> Mutant luciferase derived from LucPpe2

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Gln	Cys	Leu	Asn	Asn	Phe	Ile	Ser	Gln	Asn	Ser	Asp	Ser	Asn	Leu	Asp	
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Val	Lys	Lys	Phe	Lys	Pro	Tyr	Ser	Phe	Asn	Arg	Asp	Asp	Gln	Val	Ala	
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Pro	Phe	His	His	Gly	Phe	Gly	Met	Met	Thr	Thr	Leu	Gly	Tyr	Phe	Thr	
				245						250				255		
Cys	Gly	Phe	Arg	Val	Val	Leu	Met	His	Thr	Phe	Glu	Glu	Lys	Leu	Phe	
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Leu	Gln	Ser	Leu	Gln	Asp	Tyr	Lys	Val	Glu	Ser	Thr	Leu	Leu	Val	Pro	
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Gln	Gly	Tyr	Gly	Leu	Thr	Glu	Thr	Thr	Ser	Ala	Val	Leu	Ile	Thr	Pro	
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Ala	Val	Lys	Val	Val	Asp	Pro	Thr	Thr	Gly	Lys	Ile	Leu	Gly	Pro	Asn	
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Glu	Pro	Gly	Glu	Leu	Tyr	Phe	Lys	Gly	Pro	Met	Ile	Met	Lys	Gly	Tyr	
385					390					395					400	

Val	Gln	Asp	Tyr	Val	Ala	Ser	Gln	Val	Ser	Thr	Ala	Lys	Trp	Leu	Arg
			500					505					510		
Gly	Gly	Val	Lys	Phe	Leu	Asp	Glu	Ile	Pro	Lys	Gly	Ser	Thr	Gly	Lys
		515					520				525				
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 <220> 78-OB10  
 <223> Mutant luciferase derived from LucPpe2

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 CATAGCATTG ACAAATGCTC ATACAAAAGA AAATGTTTTA TATGAAGAGT TTTTAAATTT 180  
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 AATAATTGCA GCACCTGTTA GTGATAAATA CATTGAACGT GAATTAATAC ACAGTCTTGG 360  
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 AGGTTATCAA TGCCTCAACA ACTTTATTTT TCAAAATTCC GATAGTAATC TGGACGTAAA 540  
 AAAATTTAAA CCATATTCTT TTAATCGAGA CGATCAGGTT GCGTTGGTAA TGTTTTCTTC 600  
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 ATTCCGAGTT GTTCTAATGC ACACGTTTGA AGAAAACTA TTTCTACAAT CATTACAAGA 840  
 TTATAAAGTG GAAAGTACTT TACTTGTACC AACATTAATG GCATTTCTTG CAAAAAGTGC 900  
 ATTAGTTGAA AAGTACGATT TATCGCACTT AAAAGAAATT GCATCTGGTG GCGCACCTTT 960  
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 GTATGGATTA ACAGAAACCA CTTCTGGCTGT TTTAATTACA CCGAAAGGTG ACGCCAGACC 1080  
 GGGATCAACT GGTAATAATAG TACCATTTCA CGCTGTTAAA GTTGTCGATC CTACAACAGG 1140  
 AAAAATTTTG GGGCCAAATG AACCTGGAGA ATTGTATTTT AAAGGCGCCA TGATAATGAA 1200  
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 ACAACATCCG TATATTGTTG ATGCCGGCGT TACTGGTATA CCGGATGAAG CCGCGGGCGA 1440  
 GCTTCCAGCT GCAGGTGTTG TAGTACAGAC TGGAAAATAT CTAAACGAAC AAATCGTACA 1500  
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 <220> 90-1B5  
 <223> Mutant luciferase derived from LucPpe2

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 CATAGCATTG ACAAATGCTC ATACAAAAGA AAATGTTTTA TATGAAGAGT TTCTGAAACT 180  
 GTCGTGTCGT TTAGCGGAAA GTTTTAAAAA GTATGGATTA AAACAAAACG ACACAATAGC 240  
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AATAATTGTG	GCACCTGTTA	ACGATAAATA	CATTGAACGT	GAATTAATAC	ACAGTCTTGG	360
TATTGTAAAA	CCACGCATAG	TTTTTTGCTC	CAAGAATACT	TTTCAAAAAG	TACTGAATGT	420
AAAATCTAAA	TTAAATCTA	TTGAACTAT	TATTATATTA	GACTTAAATG	AAGACTTAGG	480
AGGTTATCAA	TGCTCAACA	ACTTTATTTT	TCAAAATTCC	GATAGTAATC	TGGACGTAAA	540
AAAATTTAAA	CCATATTCTT	TTAATCGAGA	CGATCAGGTT	GCGTTGATTA	TGTTTTCTTC	600
TGGTACAAC	GGTCTGCCGA	AGGGAGTCAT	GCTAACTCAC	AAGAATATTG	TTGCACGATT	660
TTCTCTTGCA	AAAGATCCTA	CTTTTGGTAA	CGCAATTAAT	CCCACGACAG	CAATTTTAAAC	720
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CTCTGGTGAT	ATTGCTTATT	ATGACAATGA	TGGCCATTTT	TATATTGTGG	ACAGGCTGAA	1320
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ACAACATCCG	TATATTGTTG	ATGCCGGCGT	TACTGGTATA	CCGGATGAAG	CCGCGGGCGA	1440
GCTTCCAGCT	GCAGGTGTTG	TAGTACAGAC	TGGAAAATAT	CTAAACGAAC	AAATCGTACA	1500
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<212> DNA

<213> Artificial Sequence

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<223> Mutant luciferase derived from LucPpe2

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GTCGTGTCGT	TTAGCGGAAA	GTTTTAAAAA	GTATGGATTA	AAACAAAACG	ACACAATAGC	240
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AATAATTGTG	GCACCTGTTA	ACGATAAATA	CATTGAACGT	GAATTAATAC	ACAGTCTTGG	360
TATTGTAAAA	CCACGCATAG	TTTTTTGCTC	CAAGAATACT	TTTCAAAAAG	TACTGAATGT	420
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ATTAGTTGAA	AAGTACGATT	TATCGCACTT	AAAAGAAATT	GCATCTGGTG	GCGCACCTTT	960
ATCAAAAGAA	ATTGGGGAGA	TGGTGAAAAA	ACGGTTTAAA	TTAAACTTTG	TCAGGCAAGG	1020
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GGGTTATTAT	AATAATGAAG	AAGCTACTAA	AGCAATTATT	GATAATGACG	GATGGTTGCG	1260
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GTCACTGATT	AAATATAAAG	GTTATCAGGT	TGCACCTGCT	GAAATTGAGG	GAATACTCTT	1380
ACAACATCCG	TATATTGTTG	ATGCCGGCGT	TACTGGTATA	CCGGATGAAG	CCGCGGGCGA	1440
GCTTCCAGCT	GCAGGTGTTG	TAGTACAGAC	TGGAAAATAT	CTAAACGAAC	AAATCGTACA	1500



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 4223 Mutant luciferase derived from LucPpe2

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TGGGACGGCT	GGAGAACAGA	TGTTTGACGC	ATTATCTCGT	TATGCAGCTA	TTCCGGGCTG	120
CATAGCATTG	ACAAATGCTC	ATACAAAAGA	AAATGTTTTA	TATGAAGAGT	TTCTGAAACT	180
GTCGTGTCGT	TTAGCGGAAA	GTTTTAAAAA	GTATGGATTA	AAACAAAACG	ACACAATAGC	240
GGTGTGTAGC	GAAAATAGTC	TGCAATTTTT	CCTTCCTGTA	ATTGCATCAT	TGTATCTTGG	300
AATAATTGTG	GCACCTGTTA	ACGATAAATA	CATTGAACGT	GAATTAATAC	ACAGTCTTGG	360
TATTGTAAAA	CCACGCATAG	TTTTTTGCTC	CAAGAATACT	TTTCAAAAAG	TACTGAATGT	420
AAAATCTAAA	TTAAATCTA	TTGAACTAT	TATTATATTA	GACTTAAATG	AAGACTTAGG	480
AGGTTATCAA	TGCTCAACA	ACTTTATTTT	TCAAAATTCC	GATAGTAATC	TGGACGTAAA	540
AAAATTTAAA	CCCTATTCTT	TTAATCGAGA	CGATCAGGTT	GCGTCGATTA	TGTTTTCTTC	600
TGGTACAAC	GGTCTGCCGA	AGGGAGTCAT	GCTAACTCAC	AAGAATATTG	TTGCACGATT	660
TTCTATTGCA	AAAGATCCTA	CTTTTGGTAA	CGCAATTAAT	CCCACGTCAG	CAATTTTAAC	720
GGTAATACCT	TTCCACCATG	GTTTTGGTAT	GATGACCACA	TTAGGATACT	TTACTTGTGG	780
ATTCCGAGTT	GTTCTAATGC	ACACGTTTGA	AGAAAACTA	TTTCTACAAT	CATTACAAGA	840
TTATAAAGTG	GAAAGTACTT	TACTTGTACC	AACATTAATG	GCATTTCTTG	CAAAAAGTGC	900
ATTAGTTGAA	AAGTACGATT	TATCGCACTT	AAAAGAAATT	GCATCTGGTG	GCGCACCTTT	960
ATCAAAAGAA	ATTGGGGAGA	TGGTGAAAAA	ACGGTTTAAA	TTAAACTTTG	TCAGGCAAGG	1020
GTATGGATTA	ACAGAAACCA	CTTCGGCTGT	TTTAATTACA	CCGAAAGGTG	ACGCCAAACC	1080
GGGATCAACT	GGTAAAATAG	TACCATTACA	CGCTGTAAAA	GTTGTCGATC	CTACAACAGG	1140
AAAAATTTTG	GGGCCAAATG	AACCTGGAGA	ATTGTATTTT	AAAGGCCCGA	TGATAATGAA	1200
GGGTATTAT	AATAATGAAG	AAGCTACTAA	AGCAATTATT	GATAATGACG	GATGGTTGCG	1260
CTCTGGTGAT	ATTGCTTATT	ATGACAATGA	TGGCCATTTT	TATATTGTGG	ACAGGCTGAA	1320
GTCACGTGATT	AAATATAAAG	GTTATCAGGT	TGCACCTGCT	GAAATTGAGG	GAATACTCTT	1380
ACAACATCCG	TATATTGTTG	ATGCCGGCGT	TACTGGTATA	CCGGATGAAG	CCGCGGGCGA	1440
GCTTCCAGCT	GCAGGTGTTG	TAGTACAGAC	TGGAAAATAT	CTAAACGAAC	AAATCGTACA	1500
AGATTATGTT	GCCAGTCAAG	TTTCAACAGC	CAAATGGCTA	CGTGGTGGGG	TGAAATTTTT	1560
GGATGAAATT	CCCAAAGGAT	CAACTGGAAA	AATTGACAGA	AAAGTGTTAA	GACAAATGTT	1620
AGAAAAACAC	ACCAATGGG					1639